

STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0124460**; AI **152245**; **PER20080001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

I. THE APPLICANT IS:

MBO, LLC
Lacassine Oilfield Services
P.O. Box 102
Lacassine, LA 70650

II. PREPARED BY:

Eura DeHart

DATE PREPARED:

June 8, 2009

III. PERMIT ACTION:

Issue LPDES permit LA0124460
AI 152245; PER20080001

LPDES application received: October 27, 2008

EPA has not retained enforcement authority.

IV. FACILITY INFORMATION:

- A. The Lacassine Oilfield Services facility is a commercial exploration and production waste (E&P waste) land treatment and disposal facility permitted and regulated by the Louisiana Department of Natural Resources, Office of Conservation to treat and dispose of E&P waste (excluding Waste Types 06 and 12, as defined by the Office of Conservation). The facility operates under Office of Conservation Order Number 93-05 OWD, as amended. The facility includes two commercial saltwater injection wells for disposal of liquid E&P waste and stormwater collected in the operational areas of the facility (active treatment cells, truck wash are, truck loading/unloading area, and above ground storage tanks), nine treatment cells (Cells 1, 6, 7, 8, and 9 are active; Cells 2, 3, 4, and 5 are under construction) for treatment of E&P waste solids, four reuse stockpile areas, two surface impoundments, and a retention pond.
- B. The facility is located at 19141 Gro Racca Road in Iowa, Jefferson Davis Parish.
- C. The facility was operated by Campbell Wells Corporation from 1994 to 1997 and was permitted to receive non-hazardous oilfield waste (NOW) containing naturally occurring radioactive materials (NORM). Waste was treated in accordance with CWC's permit and Statewide Order 29-B. The facility began closure operations in 1999. MBO, LLC started construction activities to re-open the facility in 2008.
- D. The treatment process includes desalination of the E&P waste through a series of dewatering and flushing steps. Treatment water is disposed of in the two on-site saltwater injection wells. Hydrocarbons that may be present in the wastewater is skimmed from the cell when necessary and transferred to storage tanks to be sold. Bioremediation activities are utilized at the facility to promote the degradation of hydrocarbons in the treatment cells. Solids (E&P waste) are treated in the treatment cells until meeting the Reuse Criteria established by the Department of Natural Resources, Office of Conservation. Reuse material will be stored in one of the four stockpile areas.

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- E. Stormwater that has or potentially has contacted E&P waste (stormwater in active treatment cells and at petroleum/chemical storage areas) is pumped to two surface impoundments (Surface Impoundment No. 1 and Surface Impoundment No. 2), where it is used in the active treatment process and is ultimately disposed of in the two on-site saltwater injection wells. Stormwater from operational areas of the site is segregated from stormwater in non-operational areas of the site by engineered internal levees. Facility personnel conduct inspections of the site perimeter and internal levees and other operational areas of the site on a daily basis in accordance with the facility's Storm Water Pollution Prevention Plan (SWP3) and the Spill Control and Countermeasures (SPCC) plan.
- F. The application is for the discharge of stormwater from the following areas of the site: i.) empty waste treatment cells (cells that do not contain E&P waste); ii.) empty reuse stock pile areas (areas that do not contain reuse material); and iii.) reuse stock pile areas that contain reuse material. Stormwater is pumped to the retention pond for treatment and discharge through Outfall 001. A four or six-inch pump will be utilized to pump water from the retention pond through a six-inch PVC pipe. The PVC pipe will discharge at Outfall 001 located at the southwest corner of the site. Discharge will only occur when the free board in the retention pond is less than 10 feet. This will be a batch discharge and will occur prior to or during periods of heavy rainfall.
- G. Sanitary wastewater from the site is treated by an on-site wastewater treatment system. The system consists of anaerobic treatment with spray irrigation and subsequent infiltration. Sanitary wastewater does not discharge off-site.
- H. Outfall 001

Discharge Location: Latitude 30° 16' 15" North
Longitude 92° 56' 15" West

Description: non-contact stormwater

Expected Flow: varies with rainfall

V. RECEIVING WATERS:

The discharge is into an unnamed ditch, thence into Flume of West Bayou Lacassine, thence into West Bayou Lacassine, in segment 050601 of the Mermentau River Basin. This segment is listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 050601 of the Mermentau River Basin are as indicated in the table below^{1/}:

Degree of Support of Each Use						
Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Full	Full	Not Supported	N/A	N/A	N/A	Full

^{1/}The designated uses and degree of support for Segment 050601 of the Mermentau River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2006 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

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VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 050601 of the Mermentau River Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated November 17, 2008 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Mr. Eura DeHart
Water Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Subsegment 050601, Lacassine Bayou-Headwaters to Mermentau River, is listed on LDEQ's Final 2006 303(d) list as impaired for mercury. Subsegment 050601 was previously listed as impaired for nutrients and organic enrichment/low DO for which TMDLs have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDL's and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

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Mercury

The mercury impairment listed for subsegment 050601 applies only to those waterbodies specifically identified in LDEQ's Final 2006 Integrated Report, and not to the entire subsegment unless so specified. Because the discharge from this facility is not directly into Bayou Lacassine, the mercury impairment will not be addressed in permit development. However, the permit contains a daily maximum technology-based limit for mercury of 0.00083 mg/l.

The following TMDL's have been established for subsegment 050601:

Bayou Lacassine Watershed TMDL

Only two point source dischargers (Town of Welsh and Lacassine High School) were considered in the WLA models. All other dischargers were considered to be too small to contribute to the impairment. The discharge from this facility is intermittent, discharging only during non-critical conditions. Therefore, it is not likely that this discharge will have any significant impact on the receiving stream that will cause further impairment.

Final Lacassine Sugar Mill DO & Nutrients

This TMDL applies only to the Lacassine Sugar Mill.

Final Effluent Limits:

Permit limits are based on the Louisiana Water Quality Standards where applicable, on Best Available Technology (BAT), and Best Professional Judgement (BPJ), or a combination of these. There are no specific EPA effluent guidelines for this industry type. Toxic priority pollutants potentially present in the wastestream include benzene, ethylbenzene, toluene, metals, cyanide, and total phenols. The facility treats and deep-well injects contact (process) wastewater. However, to protect water quality and ensure stormwater runoff does not contact the process wastestream, monitoring and reporting requirements of these parameters have been placed on Outfall 001. These toxic priority pollutants must meet BAT treatment technology limitations. The BAT numerical limits are taken from the Daily Maximum Limits in ug/l from the Organics Chemicals and Plastics and Synthetic Fibers Category Effluent Guidelines (40 CFR Part 14 Subpart I) and EPA Region VI BAT Metal Guidelines.

OUTFALL 001

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg.	Daily Max.	Basis
COD	---	100 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.
Oil & Grease	---	15 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.
TSS	---	60 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.
TDS	---	Report mg/l	BPJ for information gathering purposes
Chlorides	---	500 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents and LAC 33:IX.708.C.5
Sulfates	---	Report mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.

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Effluent Characteristic	Monthly Avg.	Daily Max.	Basis
Total Phenol	---	0.026 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.
Benzene	---	0.05236 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.
Ethylbenzene	---	0.108 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.
Toluene	---	0.08 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents..
Antimony	---	0.549 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.
Arsenic	---	0.137 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.
Total Barium	---	2 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.
Beryllium	---	0.275 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.
Cadmium	---	0.2439 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.
Hexavalent Chromium	---	0.0796 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.
Total Chromium	---	0.343 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.
Copper	---	0.5712 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.
Lead	---	0.275 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.
Mercury	---	0.000843 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.
Nickel	---	0.549 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.
Selenium	---	0.11 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.
Silver	---	0.11 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.
Thallium	---	0.549 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents.
Zinc	---	0.686 mg/l	BPJ based on previously issued water discharge permits for similar facilities/effluents..

*Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD₅ and TSS in terms of concentration.

Other Effluent Limitations:**1) pH**

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits as established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.5905.C.)

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2) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

3) Visible Sheen

No evidence or presence of a sheen shall be observed in the effluent discharge.

X. PREVIOUS PERMITS:

There are no previous permits for the facility as an E&P Waste land treatment facility.

This facility was previously operated as a NOW/NORM land treatment facility by Campbell Wells Corporation. Campbell Wells Corporation held LWDPSP Permit No. 4671 (issued March 2, 1995) for the facility. Since that time, the facility has undergone closure as a NOW/NORM land treatment facility and is now operation as an E&P Waste land treatment facility.

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:**A) Inspections**

A review of the files indicates that a complaint investigation was conducted on August 8, 2008. The following was noted:

- Conducted site review with Mr. Thibodeaux (general manager)
- Area called 30 acres is used to store removed top soil from Cells 2, 3, 4, and 5. The top soil was placed on top of the cell when site was closed by previous owner.
- Recommended additional stormwater controls for 30 acre area.

B) Compliance and/or Administrative Orders

A review of the files indicates that no compliance or administrative orders have been issued to MBO, LLC.

C) DMR Review

There are no DMRs on file for the MBO, LLC facility.

XII. ADDITIONAL INFORMATION:

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDLs. The LDEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

In accordance with LAC 33:IX.2903., this permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b) (2) Cc) and CD); 304(b) (2); and 307(a) (2) of the Clean Water Act, if the effluent standard or limitations so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

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2. Controls any pollutant not limited in the permit; or
3. Require reassessment due to change in 303(d) status of waterbody; or
4. Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

Please be aware that the Department has the authority to reduce monitoring frequencies when a permittee demonstrates two or more consecutive years of permit compliance. Monitoring frequencies established in LPDES permits are based on a number of factors, including but not limited to, the size of the discharge, the type of wastewater being discharged, the specific operations at the facility, past compliance history, similar facilities and best professional judgment of the reviewer. We encourage and invite each permittee to institute positive measures to ensure continued compliance with the LPDES permit, thereby qualifying for reduced monitoring frequencies upon permit reissuance. If the Department can be of any assistance in this area, please do not hesitate to contact us. As a reminder, the Department will also consider an increase in monitoring frequency upon permit reissuance when the permittee demonstrates continued non-compliance.

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** is 1/batch.

XIII. TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in this Statement of Basis.

XIV. REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, MBO, LLC, Lacassine Oilfield Services, October 27, 2008.